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5 <110> BASF Aktiengesellschaft

10 <120> Clp-protease as target for herbicides

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10 ttctttctgcg gttactggta ttggctttgc gaaaccgaag ctggtagtac ttggcttttg 1032

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	Lys Val Gln Gln Tyr Thr Glu Arg Asp Arg Phe Leu Ser Ala Ser Glu	
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 45 Asn Pro Pro Val Met Pro Ser Val Met Thr Pro Gly Gly Pro Leu Asp
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225 230 235 240

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Val Thr Glu Asn Arg Glu Leu Gly Ser Gly Lys Ser Thr Phe Ile Ser
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Ser Pro Asn Phe Ser Phe Ala Thr Ser Val His Ser Cys Arg Pro Asn
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ggc gtt cga ggt tat tgt tac agg tct ccg gta gct aag tct ttg gac 193
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	His Ile Pro Gln Lys Phe Arg Leu Glu Asn Leu Lys Asp Gly Leu Leu	
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	Asp Asn Tyr Lys Ser Ala Pro Gln Tyr Leu Tyr Gly Leu Ser Pro Ser	
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	Lys Tyr Ser Met Ser Val Ser Met Tyr Arg Gly Gly Thr Arg Gly Ser	
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	Gly Arg Pro Arg Thr Ala Pro Pro Asp Leu Pro Ser Leu Leu Leu Asp	
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	Ala Arg Ile Val Tyr Leu Gly Met Pro Ile Val Pro Ala Val Thr Glu	
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	Ala Tyr Cys Lys Ser Asp Ile Tyr Thr Val Asn Cys Gly Met Ala Tyr	
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	Gly Gln Ala Ala Met Leu Leu Ser Leu Gly Lys Lys Gly Phe Arg Ala	
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	Ser Ser Gly Ala Val Ile Asp Met Trp Ile Arg Ala Lys Glu Leu Asp	
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	Ala Asn Thr Glu Tyr Tyr Leu Glu Leu Leu Ala Lys Gly Val Gly Lys	
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 Ile Asn Pro Lys Asp Pro Phe Leu Ser Thr Leu Ala Ser Ile Ala Ala
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	Leu Val Glu Leu Leu Ser Lys His Thr Gly Asn Ser Val Glu Thr Val	
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	Glu Phe Gly Val Ile Asp Arg Ile Leu Trp Arg Gly Gln Glu Lys Ile	
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Val Asn Ala Asp Val Pro Pro Tyr Leu Asp Ile Phe Asp Ser Pro Gln
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Ile Thr Asn Arg Asp Ile Leu Val Glu Leu Leu Ser Lys His Thr Gly
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20 Asn Ser Val Glu Thr Val Ala Asn Val Met Arg Arg Pro Tyr Tyr Met
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	Lys	Pro	Arg	Phe	Ser	Ser	Ser	Ser	Ser	Leu	Arg	Ala	Ser	Leu	Ser	Asn	
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	Gly	Phe	Leu	Ser	Pro	Tyr	Thr	Gly	Gly	Ser	Ile	Ser	Ser	Asp	Leu	Cys	
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	Gly	Ala	Lys	Leu	Arg	Ala	Glu	Ser	Leu	Asn	Pro	Leu	Asn	Phe	Ser	Ser	
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	Ser	Lys	Pro	Lys	Arg	Gly	Val	Val	Thr	Met	Val	Ile	Pro	Phe	Ser	Lys	
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	Gly	Ser	Ala	His	Glu	Gln	Pro	Pro	Pro	Asp	Leu	Ala	Ser	Tyr	Leu	Phe	
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	Glu	Leu	Ile	Leu	Ala	Glu	Phe	Leu	Tyr	Leu	Gln	Tyr	Glu	Asp	Glu	Glu	
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	Glu	Lys	Leu	Gly	Tyr	Asp	Thr	Glu	Ala	Phe	Ala	Ile	Tyr	Asp	Val	Met	
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	Gly	Tyr	Val	Lys	Pro	Pro	Ile	Phe	Thr	Leu	Cys	Val	Gly	Asn	Ala	Trp	
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60	gcg	ttg	ccc	tca	tca	act	att	atg	ata	aag	cag	ccc	att	gct	cga	ttt	734
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	Gln	Gly	Gln	Ala	Thr	Asp	Val	Glu	Ile	Ala	Arg	Lys	Glu	Ile	Lys	His	
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	Ile	Lys	Thr	Glu	Met	Val	Lys	Leu	Tyr	Ser	Lys	His	Ile	Gly	Lys	Ser	
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	Pro	Glu	Gln	Ile	Glu	Ala	Asp	Met	Lys	Arg	Pro	Lys	Tyr	Phe	Ser	Pro	
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80	act	gag	gct	gtt	gaa	tat	ggg	atc	att	gat	aag	gtg	gtt	tac	aat	gaa	926

Thr Glu Ala Val Glu Tyr Gly Ile Ile Asp Lys Val Val Tyr Asn Glu
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45 Phe Leu Ser Pro Tyr Thr Gly Gly Ser Ile Ser Ser Asp Leu Cys Gly
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50 Ala Lys Leu Arg Ala Glu Ser Leu Asn Pro Leu Asn Phe Ser Ser Ser
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55 Lys Pro Lys Arg Gly Val Val Thr Met Val Ile Pro Phe Ser Lys Gly
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Ser Ala His Glu Gln Pro Pro Pro Asp Leu Ala Ser Tyr Leu Phe Lys
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60 Asn Arg Ile Val Tyr Leu Gly Met Ser Leu Val Pro Ser Val Thr Glu
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Leu Ile Leu Ala Glu Phe Leu Tyr Leu Gln Tyr Glu Asp Glu Glu Lys
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5 Pro Ile Tyr Leu Tyr Ile Asn Ser Thr Gly Thr Thr Lys Asn Gly Glu
 145 150 155 160

10 Lys Leu Gly Tyr Asp Thr Glu Ala Phe Ala Ile Tyr Asp Val Met Gly
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15 Tyr Val Lys Pro Pro Ile Phe Thr Leu Cys Val Gly Asn Ala Trp Gly
 180 185 190

Glu Ala Ala Leu Leu Leu Thr Ala Gly Ala Lys Gly Asn Arg Ser Ala
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20 Leu Pro Ser Ser Thr Ile Met Ile Lys Gln Pro Ile Ala Arg Phe Gln
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25 Gly Gln Ala Thr Asp Val Glu Ile Ala Arg Lys Glu Ile Lys His Ile
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30 Lys Thr Glu Met Val Lys Leu Tyr Ser Lys His Ile Gly Lys Ser Pro
 245 250 255

35 Glu Gln Ile Glu Ala Asp Met Lys Arg Pro Lys Tyr Phe Ser Pro Thr
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Ile Glu His Ser Ser Arg Gly Glu Arg Ala Tyr Asp Ile Phe Ser Arg
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Thr Ser His Val Val Val Ala Gln Leu Leu Phe Leu Glu Ser Glu Asn
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Pro Ser Lys Pro Ile His Lys Tyr Leu Asn Ser Pro Gly Gly Ala Val
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5 Asp Leu Tyr Ala Lys His Thr Gly Gln Pro Ile Glu Ile Ile Gln Lys
 180 185 190

10 Asn Met Asp Arg Asp Tyr Phe Met Thr Pro Glu Glu Ala Lys Glu Phe
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	acaactataa aagtgcacct cagtatcttt acggccttag tccttcacag atggatatgt	660
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Glu Ala Met Glu Phe Gly Leu Ile Asp Gly Val Leu Glu Thr Glu Tyr
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